WHAT IS CLAIMED IS:

1. A fluid dynamic bearing device comprising:

a sleeve having a bearing hole;

a shaft relatively rotatably inserted into the bearing hole; and

a thrust bearing member fixed to an end face of the sleeve and making contact with one end face of the shaft,

wherein a thrust-side dynamic pressure generating groove is provided at at least one of the one end face of the shaft and the thrust bearing member, at least two radial-side dynamic pressure generating grooves for performing an action of making a lubricant flow to the thrust bearing member are provided at at least one of an inner circumferential surface of the bearing hole of the sleeve and an outer circumferential surface of the shaft, and a lubricant pool portion being larger than a clearance between the sleeve and the shaft in the two dynamic pressure generating groove grooves and not confronting outside is provided in a middle of the two dynamic pressure generating grooves, and a pressure regulating hole is provided at a central portion of an end face of the shaft confronting the thrust bearing member and communicates with the lubricant pool portion.

2. A fluid dynamic bearing device comprising:

a sleeve having a bearing hole;

a shaft relatively rotatably inserted into the bearing hole; and

a thrust bearing member fixed to an end face of the sleeve and making contact with one end face of the shaft,

wherein a thrust-side dynamic pressure generating groove is provided at at least one of the one end face of the shaft and the thrust bearing member, at least two radial-side dynamic pressure generating grooves for performing an action of making a lubricant flow to the thrust bearing member are provided at at least one of an inner circumferential surface of the bearing hole of the sleeve and an outer circumferential surface of the shaft, and a lubricant pool portion being larger than a clearance between the sleeve and the shaft in the two dynamic pressure generating groove grooves and not confronting outside is provided in a middle of the two dynamic pressure generating grooves, and a pressure regulating hole is provided at an outer-circumference neighborhood portion of the thrust-side dynamic pressure generating groove of an end face of the shaft confronting the thrust bearing member and communicates with the lubricant pool portion.

3. A motor including the fluid dynamic bearing device as defined in Claim 1, wherein the sleeve or the

shaft is rotated as part of a rotor.

4. A motor including the fluid dynamic bearing device as defined in Claim 2, wherein the sleeve or the shaft is rotated as part of a rotor.

5. A motor including the fluid dynamic bearing device as defined in Claim 1, wherein the pressure regulating hole is provided so that the lubricant of the lubricant pool portion is moved toward the thrust plate by the dynamic pressure generating groove lower than the lubricant pool portion so as to be moved to a central portion of a thrust surface of the shaft, then passing through the pressure regulating hole provided within the shaft to return to the original position.

6. A motor including the fluid dynamic bearing device as defined in Claim 2, wherein the pressure regulating hole is provided so that the lubricant of the lubricant pool portion is made to flow toward the thrust plate by the asymmetrical dynamic pressure generating groove lower than the lubricant pool portion, so as to move up to the outer-circumference neighborhood portion of the dynamic pressure generating groove of the thrust surface of the shaft, passing through the pressure regulating hole provided within the shaft to return to the original position.

7. A fluid dynamic bearing device comprising:

a sleeve having a bearing hole;

a shaft relatively rotatably inserted into the bearing hole;

a sleeve holder surrounding the sleeve; and

a thrust bearing member fixed to an end face of the sleeve holder and making contact with one end face of the shaft,

wherein a thrust-side dynamic pressure generating groove is provided at at least one of the one end face of the shaft and the thrust bearing member, at least two radial-side dynamic pressure generating grooves for performing an action of making a lubricant flow to the thrust bearing member are provided at at least one of an inner circumferential surface of the bearing hole of the sleeve and an outer circumferential surface of the shaft, and a lubricant pool portion being larger than a clearance between the sleeve and the shaft in the two dynamic pressure generating grooves and not confronting outside is provided in a middle of the two dynamic pressure generating grooves, a narrow gap portion is provided between the sleeve and the thrust bearing member; and a pressure regulating hole is provided in an end face of the sleeve confronting the thrust bearing member and which communicates with the lubricant pool portion, and the sleeve holder is made of a material smaller in linear

expansion coefficient than the sleeve.

8. A fluid dynamic bearing device according to Claim 7, wherein an axial length of the sleeve is set to not more than 20 mm, a clearance of the narrow gap portion is sized to 1/500 to 1/1000, compared with the axial length of the sleeve, and a difference in linear expansion coefficient between a material of the sleeve and the material of the sleeve holder is set to 5.0×10^{-6} to 10.0×10^{-6}.

9. A motor including the fluid dynamic bearing device as defined in Claim 7, wherein the sleeve or the shaft is rotated as part of a rotor.

10. A motor including the fluid dynamic bearing device as defined in Claim 8, wherein the sleeve or the shaft is rotated as part of a rotor.

11. A motor including the fluid dynamic bearing device, as defined in Claim 8, wherein when a temperature of working environment of the fluid dynamic bearing device is changed, the narrow gap for adjusting the thrust pressure is changed by a difference in linear expansion coefficient between the sleeve and the sleeve holder in such a direction that a thrust floating amount is adjusted, in response to changes in thrust pressure due to increases and decreases of a viscosity of the lubricant.